



Event Response



Criteria for Reactor Event Response (MD 8.3, “NRC Incident Investigation Procedures”)

Deterministic Criteria for Incident Investigation Team (IIT)

- Significant radiological release; major release of nuclear material to unrestricted areas; occupational overexposure or overexposure to public
- Site Area Emergency
- Exceed safety limit of Licensee Technical Specifications
- Circumstances sufficiently complex, unique, or not well enough understood; or safeguards concerns; or characteristics the investigation of which would best serve needs and interests of the Commission



Deterministic Criteria for Augmented Inspection Team (AIT)

- Radiological release, or loss of control of nuclear material that led to occupational exposure or exposure to public
- Significant safeguards infraction or repeated infractions that demonstrate ineffective facility security



Deterministic Criteria for Graded Event Response

- Operations exceed/not included in design bases
- Major deficiency in design, construction or operation having potential generic safety implications
- Significant loss of fuel integrity, primary coolant pressure boundary, or primary containment boundary
- Loss of safety function or multiple failures in systems to mitigate event
- Possible adverse generic implications
- Significant unexpected system interactions
- Repetitive failures/events involving safety-related equipment or operations deficiencies
- Concerns with licensee operational performance



Graded Event Response vs. Conditional Core Damage Probability (CCDP)

- $1\text{E}-6$ through $1\text{E}-4$: Special Inspection
- $1\text{E}-5$ through $>1\text{E}-3$: Augmented Inspection Team
- $1\text{E}-3$ through $>1\text{E}-3$: Incident Investigation Team



Event Response

- Use of CCDP for event response vs core damage frequency for significance determination process
- IP 71153 event follow-up provides input to risk analysts for determining CCDP



Event Response Investigation/inspection Incident Investigation Team (IIT)

- NUREG-1303, “Incident Investigation Manual”
- SES Team Leader
- Team members independent of facility licensing/inspection, certified as formally trained in incident investigation
- EDO approves IIT formation, selects team leader/members, provides policy/technical direction
- Determines whether regulatory process contributed to event



Augmented Inspection Team (AIT)

- IP 93800, “Augmented Inspection Team”
- Team leader non-SES manager or qualified team leader
- Region staff augmented by personnel from headquarters, other regions, contractors

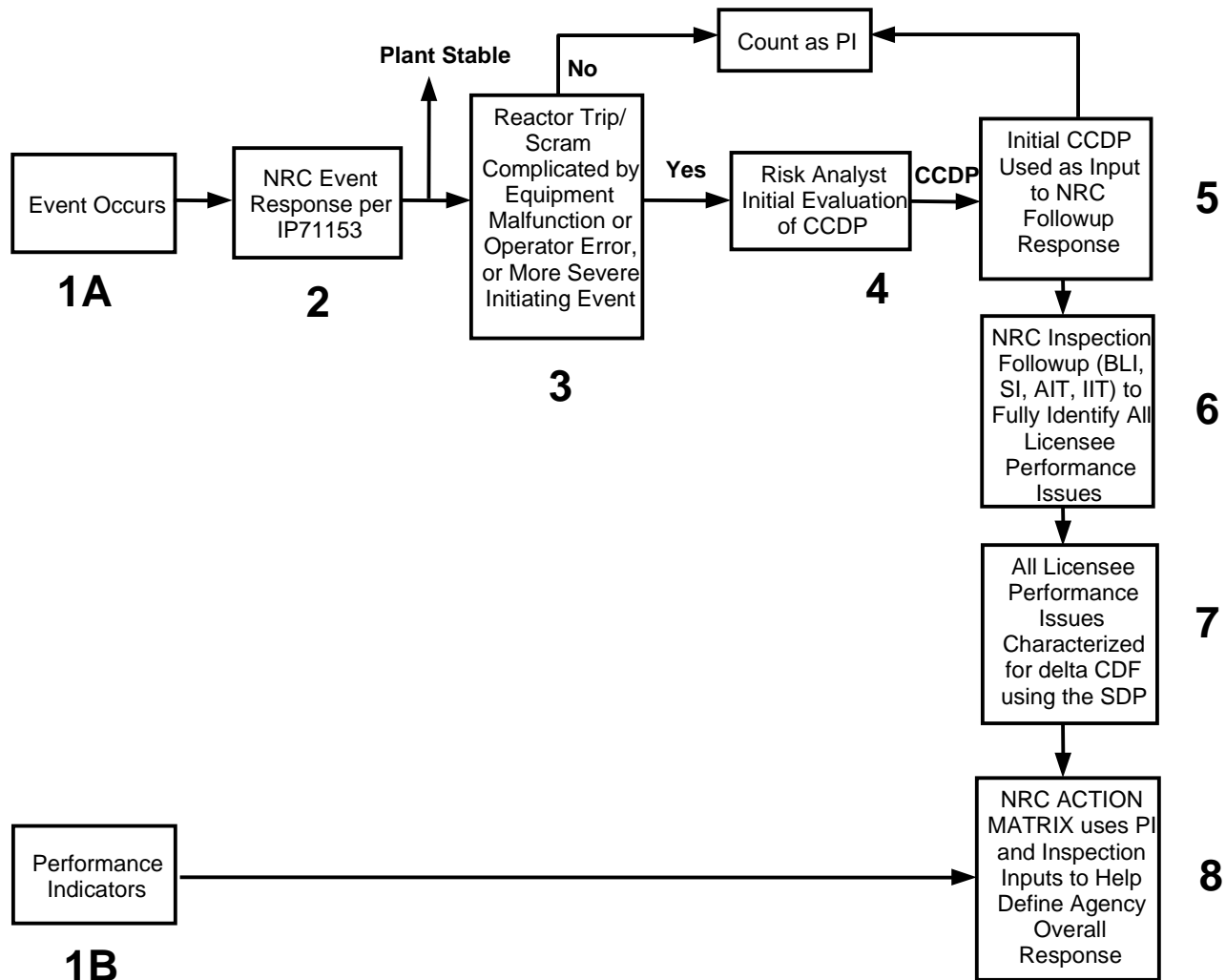


Special Inspection (SI)

- IP 93812, “Special Inspection”
- Generally not team inspection
- Led by qualified team leader or senior engineer
- Region staff not augmented by outside personnel
- Determines if NRC rules/requirements violated, recommends enforcement



Event Response Logic





Graded Event Response vs. Conditional Core Damage Probability (CCDP)

